# **Streamflow Criteria**

Classification	Habitat Category	Goals	Criteria	Other
Description:	Description:	Description:	<u>Description</u> :	Description:
Vision for Future	Existing	Expectations for a class	Performance standards or	Other tools and
Conditions	Conditions	(could address one or	other measures that	mechanisms
		more issues including	quantify maximum	
Examples:		habitat, streamflow,	amount of alteration	
No backsliding:		impervious cover, water	allowed; intended to	
classification =		supply), includes trade-	accomplish goals	
categorization		offs		
Restoration:		Examples:		
classification =		No backsliding		
higher quality				
category		Protect coldwater		
		fisheries		
		Protect sensitive species		
		Protect potentially		
		productive aquifers		
	1			
	2			
	3			
	4			
	5			

#### Discussion

- 1. What should the goals be, what would they look like and how do we implement them? (e.g., could assume all lower than Category 3 should get to 3 by X date; or, Category 5s and 4 should go to 3 in X years)
  - a. % impervious and % August alteration as human influenced variables that set the category boundaries
  - b. What about special resources within a category that may need additional protection? (e.g. cold water fisheries, future potential water supplies)
- 2. Which programs could help to implement goals?
- 3. As a baseline, a goal of no backsliding has been suggested. If we agree on "no backsliding", what does that mean and how to do we implement it?
- 4. Do we need a floor for Category 5?
- 5. There may be goals of restoration and trade-offs for some basins. What process should we consider? What about public participation?

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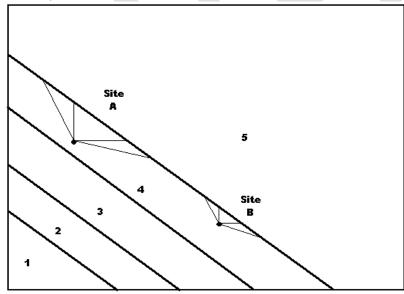
# **Other Key Topics**

**Impervious Cover** 

- 1. How to address? How to allocate while simultaneously dealing with impervious cover? Examples include:
  - a. Use maximum allowable flow alteration under baseline (1%) impervious cover conditions
  - b. Use maximum allowable flow alteration under "current" impervious cover conditions until Impervious cover is controlled.
  - c. Use maximum allowable flow alteration under "current" impervious cover conditions plus a safety factor until impervious cover is controlled.
  - d. Do nothing until impervious cover is controlled.
  - e. For a, b and c, how to address allocations already made once impervious cover is addressed?
- 2. Trade-offs/mitigation How to address?

# **Categorization Schematic** – Example of a tool that could be used to inform decisions affecting habitat

**Percent Impervious Cover** 



Percent Alteration of August Median Flow

# **Safe Yield Discussion** – components of safe yield that we have discussed

"Safe yield"- the maximum dependable withdrawals that can be made continuously from a water source including ground or surface water during a period of years in which the probable driest period or period of greatest water deficiency is likely to occur; provided, however, that such dependability is relative and is a function of storage and drought probability.

#### 1. Basin Yield

- a. Baseflow vs. Total Flow
- b. Most constrained flow month (August)

#### 2. Geographic Scale

- a. Basin
- b. Subbasin

#### 3. Temporal Scale

- a. Annual
- b. Seasonal
- c. Monthly (August)

#### 4. Drought

- a. Actual events (1960s, 1980)
- b. Recurrence Q90, Q95, Q98 (exceeded 90%, 95%, 98% of the time, respectively)

#### 5. Environmental Protection Factor

- a. Percentage of Basin Yield
- b. Environmental flow statistic to protect (e.g., protect the August median)
- c. Use Fish and Habitat study results (amount of August flow that can be taken without crashing the fish)

#### 6. Non-Consumptive Use

- a. Should there be credit for water withdrawn that is returned in the same basin?
- b. At what scale? (Basin/subbasin)
- c. Do all returns count equally? (septic vs. mainstem wastewater return)

#### 7. Storage

- a. How do you count it?
- b. Reservoirs that can store more than 1 year of flow?
- c. Winter skimmers even if volume is less than 1 year of flow?
- d. Does normal variation apply in a drought?

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# 8. Safe Yield Methodology

- a. One methodology applied across all basin
- b. More than one methodology applied (different methodologies on different basins)
- c. Examples have included:
  - i. Issue permits with enforcement compliance schedules to meet safe yield registrations alone exceed safe yield
  - ii. Different methodologies for calculating safe yield for different basins or classes
  - iii. Reduce safe yield over time
  - iv. Recognize that reservoir withdrawal in non-summer seasons
  - v. Specify in safe yield language that strict permit conditions are required when certain goals are not met

## 9. Determining Compliance with Safe Yield

- a. Compare SY to Total Allocated
- b. Compare SY to Net Total Allocated (total allocated minus in-basin returns)
- c. Compare SY to Current Use
- d. Compare SY to Net Current Use (current use minus in-basin returns)

## 10. Protection beyond Safe Yield

a. Safe Yield alone won't always protect all flows b/c it's "the bucket", so we need Categories, Criteria and Allocation to provide the additional protection

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